

## ROTATING FLUID EVAPORATOR AND CONDENSER

### CROSS-RELATED APPLICATIONS

This application is related to the following co-pending U.S. Patent Applications:

U.S. Patent Application Serial No. 09/211,363, <sup>now U.S. Pat. No. 6,238,524,</sup> entitled, ROTATING PLATE

5 HEAT EXCHANGER, filed December 14, 1998, and assigned to the assignee of the present application; and

U.S. Patent Application Serial No. 09/246,354, <sup>now U.S. Pat. No. 6,261,419,</sup> entitled, ROTATING PLATE

HEAT EXCHANGER, filed February 8, 1999, and assigned to the assignee of the present application.

### BACKGROUND OF THE INVENTION

#### *Field of the Invention*

This invention relates to distillation systems and, more specifically, to an improved, highly efficient, rotary evaporator and condenser for use in a vapor compression distiller.

#### 15 *Background Information*

Distillation is a well-known method for generating potable water from otherwise unsafe water sources (such as sea water or polluted ground water). With distillation, water is heated to boiling, and the resultant vapor (i.e., steam) is collected and condensed, producing distilled water. Many contaminants that are present in the water source are left behind when the water is converted to its vapor phase. Conventional small distillers typically incorporate an electric heating element to boil water in a tank. A condensing coil